

# **AMIGA** **WORKBENCH**

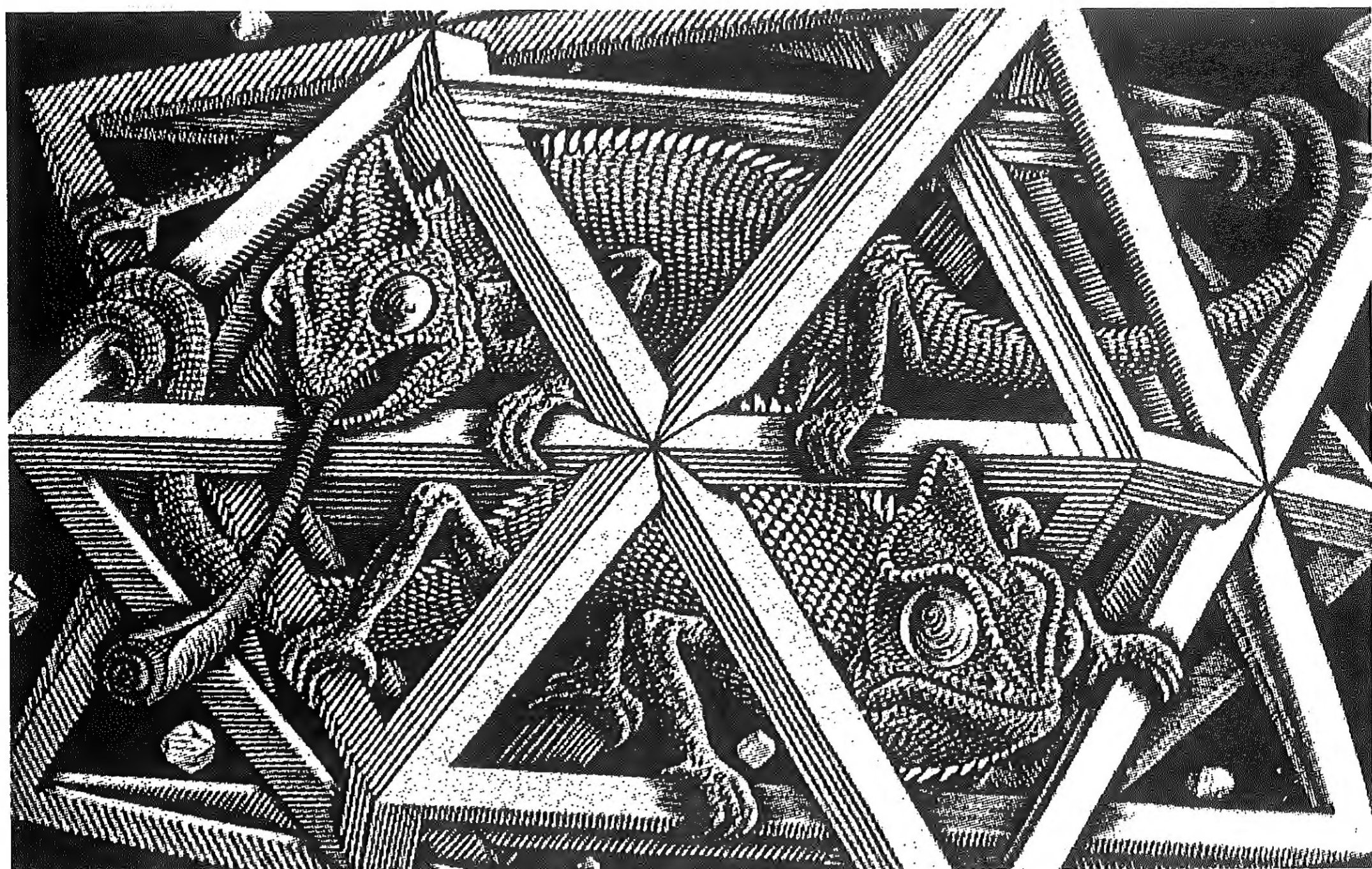
\$2  
RRP

Registered by Australia Post - Publication No. VBG 7930

Number 46

Circulation: 1200

March 1990



*Picture: Digitised Escher illustration*

## **Next AUG Meeting**

*Sunday, March 18th at 2pm*

(Doors open at 1pm, meeting starts at 2pm sharp)

**AUG meetings are held at Victoria College Burwood Campus  
Burwood Highway, Burwood - Melways map 61 reference B5.**

**Amiga Users Group Inc, PO Box 48, Boronia 3155 Victoria, Australia**

Australia's Largest Independent Association of Amiga Owners  
The *Amiga Users Group Inc* has no affiliation with Commodore  
*Amiga* is a trademark of Commodore-Amiga, Inc



# AMIGA Users Group

## Who Are WE?

The Amiga Users Group is a not-for-profit association of people interested in the Amiga computer and related topics. With over 1000 members, we are the largest independent association of Amiga users in Australia. **We DO NOT condone software piracy.** We can be reached via an answering machine at:

- 563 9293 -

## Club Meetings

Club meetings are held at 2pm on the third Sunday of each month at Victoria College, Burwood Highway, Burwood. Details on how to get there are on the back cover of this newsletter. The dates of upcoming meetings are:

Sunday, March 18th at 2pm

Sunday, April 22nd at 2pm

Sunday, May 20th at 2pm

## Production Credits

This month's newsletter was edited by Con Kolivas. Equipment and software used was: Amiga 500 with SIN500-2 memory board, Professional Page, and HP Laserjet with JetScript.

## Copyright and Reprint Privileges

Amiga Workbench is copyright 1989 by the Amiga Users Group Inc. Articles herein that are copyrighted by individual authors or otherwise explicitly marked as having restricted reproduction rights may not be reprinted or copied without written permission from the Amiga Users Group or the authors. All other articles may be reprinted for any non-commercial purpose if accompanied by a credit line including the original author's name and the words "Reprinted from Amiga Workbench, newsletter of the Amiga Users Group, PO box 48, Boronia, 3155".

## Contributions

Articles, papers, letters, drawings, cartoons and comments are actively sought for publication in Amiga Workbench. All contributions submitted for the purpose of publication that are printed in the newsletter are rewarded on the basis of one free public domain disk copy per column or half page printed with a minimum of one free copy. Contributions may be sent in on disk, paper or uploaded to Amiga Link or Amiga Link II in the area set aside for this purpose. Please send your contributions in text-only, non-formatted if they are on file and remember to include your address for return of disks and tokens for PD disks. **Absolute** deadline for articles is 23 days before the meeting date. Contributions can be sent to: The Editor, AUG, PO box 48, Boronia, 3155.

## Membership and Subscriptions

Membership of the Amiga Users Group is available for an annual fee of \$25. To become a member of AUG, fill in the membership form in this issue (or a photocopy of it), and send it with a cheque or money order for \$25 to: Amiga Users Group, PO Box 48, Boronia, 3155

## Public Domain Software

Disks from our public domain library are available on quality 3.5" disks for \$6 each including postage on AUG supplied disks, or \$2 each on your own disks. The group currently holds over 200 volumes, mostly sourced from the USA, with more on the way each month. Details of latest releases are printed in this newsletter, and a catalog disk is also available.

## Member's Discounts

The Amiga Users Group negotiates discounts for its members on hardware, software and books. Currently, Technical Books in Swanston Street in the city offers AUG members a 10% discount on computer related books, as does McGills in Elizabeth Street. Just show your membership card. Although we have no formal arrangements with other companies yet, most seem willing to offer a discount to AUG members. It always pays to ask!

## Back Issues of Workbench

All back issues of Amiga Workbench are now available, for \$2 each including postage. Note that there may be delays while issues are reprinted. Back issues are also available at meetings.

## Amiga Link I & II - Our Bulletin Board Systems

The Amiga Users Group operates two bulletin board systems devoted to the Amiga, using the Opus message and conferencing software. AmigaLink I and II are available 24 hours a day. AmigaLink I & II can be accessed at V21 (300bps), V22 (1200bps), V23 (1200/75bps) or V22bis (2400bps) using 8 data bits, 1 stop bit and no parity.

AmigaLink is part of a world-wide network of bulletin boards, and we participate in national and international Amiga conferences. AmigaLink has selected Public Domain software available for downloading, and encourages the uploading of useful public domain programs from its users. AmigaLink I (792-3918) is OzNet node number 8:830/324 and AmigaLink II (376-6385) is OzNet node number 1305/998

## Newsletter Advertising

The Amiga Users Group accepts commercial advertising in Amiga Workbench subject to the availability of space at these rates:

Quarter page \$20  
Half page \$40  
Full page \$70  
Double page spread: \$120

These rates are for full-size camera-ready copy or Professional Page format only. We have no photographic or typesetting facilities. Absolute deadline for copy is 23 days before the meeting date. Send the copy and your cheque to: The Editor, AUG, PO Box 48, Boronia, 3155, Victoria.

## Amiga Users Group Committee

Co-Ordinator:	Neil Rutledge	597 0928	Highett
Ass. Co-Ord:	Chris Weam	369 4302	Laverton
Meeting Chair:	Arnold Robbins	808 0551	Box Hill sth.
Secretary:	Alan Gamer	879 2683	N/A
Treasurer:	Donna Heenan	543 7415	Clayton
Membership:	John Hampson	584 3921	Cheltenham
Purchasing:	Bohdan(Drac) Ferens	792 1138	Dandenong
Book Library:	Ross Johnson	824 7026	Malvern
Disk Library:	Michael Lamb	752 2130	Ferntree Gully
Editor:	Con Kolivas	484 1339	Thornbury
Committee:	Peter Jetson	752 2053	Upper FTG
	Rod King	(059) 62 5805	Healesville
	Lester McClure	233 5664	Mnt. Waverley
	Chris Tremelling	N/A	N/A

## NWAUG committee

Co-Ordinator:	Hugh Leslie	489 1584	Clifton Hill
Ass. Co-Ord.:	Kid Currie	531 7282	Elsternwick
Meeting Chair:	George Wahr	376 6180	Kensington
Mem.& Treas.:	Lawrence Hill	478 6145	N/A
PD:	Alan Cheng	380 5588	W. Brunswick

## SCRIBBLE! PLATINUM EDITION: A Review.

Like so many other members of A.U.G., I have read much, and gained a great deal from the pages of Workbench. Tentatively I would like to present a review of Scribble! Platinum Edition.

I have owned a number of the more "significant" word processors for the Amiga. I have had an A1000 since early 1987 (actually, I'm on my second A1000; the first (in retrospect) had faulty PALs, but no-one could tell me that back when I was trying to attach a Sidecar and Proton board simultaneously, so I ended up buying a later production model) and it came with the obligatory Textcraft. Well some people may like it, but I had moved up from an Apple II, and after a few weeks, began to long for Appleworks.

However, Scribble! became available, and I started to feel that I could start to process words in a real Amiga environment. It multi-tasked well, was wonderfully compatible with its sister product Analyze!, never gurred, and the Spell check, Mail Merge and easily embedded printer codes all did what they were supposed to.

But something was missing; I wanted more.

Glossy advertisements started appearing in overseas magazines. They told me that there was an Industry Standard Word Processor out there, and that for the equivalent of (then) a month's mortgage, I could be part of it.

Now, some of you may remember a Software Evaluation group that may still exist somewhere in Melbourne, although I have had no "updates" from them for some time. Well, through this firm, I obtained Word Perfect, for a weeks evaluation, back in early 1988. I'm sure later versions have improved, but aside from never really understanding the installation process (those printer lists!), the number of times it crashed was depressing. As I've said, I have a sidecar, and having to boot my machine with any frequency can waste a lot of time, and be very, very boring. Although I feel the potential for enhanced productivity was in there somewhere, the learning curve looked to be too flat for too long to justify the investment in dollars or time. One of the true tests of a good Amiga program is not having to refer to the manual for at least the first hour of use, and maybe not at all.

So I was back with Scribble! But once again the pervasive power of advertising began to exert its subliminal effect upon me. I began to see product previews, and then reviews, of a new word processor from Micro Systems Software, the Scribble! people. Everyone now knows Excellence! It seemed to have all the answers: graphic importation, multiple fonts, spelling, thesaurus, even a grammar checker! Postscript support (not that I'll ever be able to afford to use it), table of Contents generation, the list seemed to go on. I bought it. After all, this one would only set me back half a mortgage payment!

Excellence! is a great program, but despite all its features, there is much about it that makes me feel uncomfortable.

I never really feel that I can see all I'm supposed to see in a document window with Excellence! The bottom scroll bar

seems always to be saying that there is something off to the right that I am going to have to move the whole page to see. Mind you, this is rarely the case, except in some 80 column wide forms I have tried to produce. I like to use the mouse a lot to style text, but I find it incredibly backward to highlight text, then decide how to style it from the menu. Give me Scribble!'s wonderful little brush, that I can move around a whole document, underlining or boldfacing, without having to constantly move the mouse pointer back to the top of the screen. Other things seem a drag as well. I could never move the tab stops properly, and they always seemed to flick back to where I didn't want them. My other three major gripes are that no matter how I tried, I could never generate a page format, and save it. I really tried, but the pages I saved with pre-set formats always came back with the program's default margins, page length, header and footer margins, etc. Lastly, and most frustrating is the typing speed. I have calluses on my two middle fingers - that's the sort of typist I am - but even I can out-type Excellence! It was obviously designed for rich Americans, who would solve the problem by running down to the Mall and buying a 68020 or '030, but it seemed to amplify my own tendency to type twenty mistakes a minute. It is the silicon equivalent of tripping over your own tongue. You see the second last word you typed appearing, while trying to think about the word you are going to type next. The lack of an overstrike facility is a glaring omission.

In defence of the program, I think it is otherwise unparalleled. A program that does math, generates columns, does grammar checking, index and table of contents generation, with a user definable glossary has to be described as feature laden.

So, for the more mundane tasks in life, like letters, job applications, and so on, I was back to Scribble! It was nice to occasionally check my documents readability level and grammar with Excellence!, or generate columns, but Scribble! was still my workhorse.

Some months later, the advertising industry must have found out that my tax return was back, because they started it again. Advertisements about a program that sounded like it could do it all (again). Not only that, but it would print graphics as graphics, and text as text, in the printer's resident font, at the printer's text speed. Combine this with an in-built database, forms generation, and the ability to draw lines and boxes, and I was ready to put the money down. I did, and home I came one Saturday with Pen Pal.

Well, once again, no one has lied, but using Pen Pal left me feeling unsatisfied once more. Although the program asks for one megabyte, even setting the programs preferences to the minimum would make multi-tasking difficult with only one meg. I was astonished to see my free memory drop by more than a megabyte when it was loaded. I have 2.5 megs, and I'm not used to seeing "Out Of Memory" messages appear. But they did.

Pen Pal is everything that it claims to be, but as contender for top dog title, it has a long way to go. It, too, is easily out-typed, and lacks an overstrike facility. I was disappointed at the time it took to convert my .doc files to its own format, and the mess it made of them. New players in a market like this need to have



some sort of compatibility with long standing programs. I became depressed to think of the time and effort it would take to convert and reformat all my files if Pen Pal was to become my day to day word processor. Like Excellence!, Pen Pal's authors have made a serious error when it comes to reformatting or restyling text. Once again, you have to highlight text first, then alter it, a tedious process if you want to underline half a dozen widely separated words or sentences in a document. Scrolling and screen updating are very slow as well. The version I have (1.1.9) seems a bit buggy, too. The guru, whom I have not seen for some months, began to visit again, and there is little bit of screen, just above the vertical scroll bar, that sends the program into a prolonged "wait please" if you mistakenly run the mouse pointer over it. There is no gadget at that spot, but maybe they are going to put something there in an update!

On the plus side, the forms device is handy, as well as the ability to draw lines and boxes. The mixed text/graphics printing is a real boon if you like pictures or diagrams in your documents. Although it lacks the sophistication of Excellence!, it is certainly a feature laden package. I have not mentioned the database in the package. It is not worth mentioning.

But only a few weeks after I purchased Pen-Pal I noticed an advertisement by a Sydney based mail order company. Scribble! Platinum was on sale for \$99.00. In the same magazine (Aust. Commodore and Amiga Review) was a glowing testimonial for the program, too. As this was \$50.00 less than prices I had seen elsewhere, and I figured that I couldn't stop the pursuit of my dream yet (despite my Visa card balance) I promptly ordered it. Just as promptly, the program was delivered the next day by courier (Interlink Software were the vendors).

Scribble! Platinum has the look and feel that I enjoyed with plain old Scribble! A window, scroll bars, and some basic information. No gadgets, rulers, boxes, and everything there to be seen. The text appears as you type it!

Unlike the original Scribble!, the new version opens its own screen, instead of plonking a few windows over your Workbench. Like the original, you can have four windows open at once, but only one view of any current document. The whole thing multitasks nicely, and seems to use about 350 to 380 k. It opens PAL sized windows, too, which is another nice feature compared with the original. You can choose between 2, 4 and 8 colour screens.

The file requestors have been altered to look like those of Excellence! There is room for improvement here. You have to cycle through the various drives with a "DRIVE" gadget, though you don't have to wait for a full listing to keep moving. Other programs (Pen-Pal and Pagesetter spring to mind) list the available drives for you. Also the "Delete" gadget has been, in fact, deleted. I feel the author of the program doesn't trust me to make that sort of decision. This is an inconvenience if you tend to merge files, and don't want the originals cluttering up your disk.

The Menus are very similar to those of their predecessor, though there are some notable differences. The original version asked you, when you opened a document window, how many K you wanted to allot it. The default was 16k, but anything you

had memory for could be inserted. This version allots you 16k for each window, but you can change the default by using WORDMEM in the tool types of the Scribble! icon, but I suppose this is rather less flexible. There is a "Preferences" sub-menu as well on the "Project" menu, which lets you set the colours, interlace, turns off icons for your documents, and, and lets you turn on horizontal and vertical overscan. The manual makes only brief mention of this last feature, but when I tried it, all I could see that was the mouse pointer no longer would go to the very margins of the window, but stopped about half a dozen pixels in from the side and bottom borders. I don't understand this. Perhaps I'll notice the difference when my Phoenix board arrives, and I connect up a Flicker Fixer and a Multisync monitor ( ha! ).

You have the ability, with this program, to file away a number of different page formats, and call them up for the particular window you are in. I think this is a much better idea than the Pen-Pal and Excellence! concept of having a pre-set, blank page to call up when you want an 80 column window, without justification and with a 70 line page length. The updating of the document when you change formats is much faster than the aforementioned programs, too. New in the "Mode" menu is the ability to set sub- and superscript in your text. This does not appear as such on screen, but the text is, and remains highlighted. There is no difference in the highlighting for either mode, even with an 8 colour screen.

The spell checker seems more complete, and faster, than the original, with the option to check as you type. When you spell as you go, remember to have the sound turned on, otherwise you won't notice your mistakes being "beeped" at you. There is a utility provided to load the dictionary in and out of RAM:, but I find the speed is quite satisfactory when used from my sidecar's hard drive, so I'm sure it would be OK for those of you that have real hard drive systems. The other new feature is the 400,000 + thesaurus that comes with the program, and this is a nice addition indeed. My only complaint about this is that, while it makes lots of nice suggestions, you have to type them in yourself. You can't just point and click to alter a word. The "Print" menu is very similar to the old one, with its print preview mode, and print to file option, but you now have the ability to select NLQ printing from the menu, rather than flicking back to Preferences, or trying to press the appropriate button on your printer at just the right time!

There are a number of keyboard commands which are not represented on the menu bar, such as inserting page breaks, etc., but these can all be found by pressing the F1 key, just as many of the dot commands (that the original had as well) can be found by pressing F2. The program doesn't come with a list of dot commands that you can use for your printer (the original did), but these can be found in the A2000 manual. My printer manual has a whole lot of commands to do the same things, but I could not relate the two. By the way, any one using a Bridge-board or Sidecar, and who runs AMOUSE to turn their mouse into a Microsoft compatible beast will find that pressing Left-Amiga-P, while using Scribble! Platinum to insert a page break freezes their mouse. This is actually the activating sequence for AMOUSE, and I couldn't seem to reverse it. The original Scribble! used the left ALT key for many of these commands, so I hadn't struck it before. So alter your startup sequences and

IconX files accordingly!

In summary, I'd like to say that as an Amiga devotee, I can't help but be amazed by the wonderful things that people have written for it. Regarding word processors, I'll be sticking with Scribble! Platinum. It doesn't have the bells and whistles of the others, but it does what it is supposed to do. Process words. The others seem to me to be caught in a hole somewhere between true desk top publishing and word processing. Pen-Pal is certainly interesting, and its most novel feature is the ability to print text and graphics without loss of speed. (I think Prowrite can do this, too.) Excellence! has nearly everything, but is slow. If only someone would combine all their best features into a package that did things exactly the way I want them to! Looks like I'll have to keep following the advertisements a while longer

## Competition:

AUG is having a colour cover for it's 50th edition in July 1990 and is looking for potential cover pictures.

All members can enter pictures for the competition, and as well as having the fame of having the colour cover of the Workbench, they will be rewarded with a year's free membership and a high quality full colour blow-up of their picture.

Entries can be drawn, digitised, computer generated or anything else as long as they are original, colourful and interesting. Just send in, or alternatively hand in, on disk, your IFF file to:

**The Editor, AUG**  
**PO box 48**  
**Boronia 3155**  
**Victoria, Australia**

## Public Domain update

### CONTENTS OF DISK 301

**AquariumA** program for searching through a special database containing information about the contents of the library, in order to find programs that match a specified list of conditions. Includes a database of disks 1-300, and a program to add the contents of future disks to the database. Binary only. Author: B Lennart Olsson

**Ifflib** A ready-to-use library to perform various manipulations on IFF files. Includes a sample IFF viewer and a utility to save the front screen as an IFF file. This is version 16.1, an update to version 15.3 on disk 173, and includes a couple of bug fixes and some new features. Binary only.  
 Author: Christian A. Weber

**Ueditupdate** This is a partial update to the 2.5d version of Uedit on disk 286. It includes only the UES executable, which has had patches d1 through d4 applied. Disk 286 is still needed for a complete Uedit shareware distribution. Binary only. Author: Rick Stiles

### CONTENTS OF DISK 302

**Chop** A program which uses a hotkey to chop a displayed screen down to a temporary maximum of 4 planes in lo-res or 2 planes in hi-res, allowing the processor full speed access to chip memory. Only the displayed screen is affected, the program painting the screen continues to work with the full color palette. Unchopping the screen puts everything back to normal. Version 1.0, binary only.  
 Author: Nico Francois

**DiskTalk** A cute little program, like "muncho" on disk 137, which plays digitized sound samples when you insert or remove a floppy disk. Samples are saved as IFF sound files. Version 1.0, binary only. Author: Nico Francois

**MiscUtils** Some small sound and screen hacks. Includes source in C. Author: Jorrit Tyberghein

**PPMore** Another "more" like utility. This one reads text files that have been crunched with PowerPacker, thus saving space at the slight expense of some time to uncrunch the text. Version 1.3, binary only. Author: Nico Francois

**ProgUtils** Some miscellaneous programming utilities and examples. Includes source in assembly code. Author: Jorrit Tyberghein

**QuickHelpA** utility that helps you make and display your own help files for commands. Disk space usage is minimized by using PowerPacker to crunch the help files. Version 1.2, binary only. Author: Jorrit Tyberghein

**RollOn** A "Soko-Ban" like shareware game, submitted by the author. Includes both English and German versions, a level editor, and digitized sounds. This is version 1.1, binary only. Author: Tobias Eckert

**SelectorA** program that helps you assemble programs on a boot disk and start them in a user friendly way. Version 2.5, binary only. Author: Nico



Francois

TurboMandelA fast mandelbrot program, written in a mix of C and assembly language. You can select between using floating point or integer calculation. Other features include a full intuition interface, cycling capabilities, extensive color control, a user definable iteration depth, fully implemented zoom, a 3-D display mode, support for extra halfbrite as well as interlace and hires, IFF load and save, accuracy selections, and more. Version 1.0, includes source in assembly and C. Author: Marivoet Philip

CONTENTS OF DISK 303

CPM A program to compute mandelbrots via the Continuous Potential Method, as described in the book "The Science of Fractal Images" by H. O. Pietgen and D. Saupe. It is used to make 3-dimensional pictures of the mandelbrot set. This is a batch mode type program so several images can be generated, one after the other, without any human interaction. Includes source. Author: Lars Clausen

DEM A program to compute mandelbrots via the Distance Estimator Method, as described in the book "The Science of Fractal Images" by H. O. Pietgen and D. Saupe. It is used to make high resolution black-and-white images. This is a batch mode type program so several images can be generated, one after the other, without any human interaction. Includes source. Author: Lars Clausen

Demon This program implements the Demons cellular automaton as described in the August, 1989, issue of Scientific American. Using extremely simple rules it exhibits rather complex behaviour. Includes source. Author: Lars Clausen

FixIconsA program to scan through all files in a given volume or directory, looking for project icons and changing their default tools according to instructions given in a script file. Version 1.2, includes source. Author: Lars Clausen

IceFracA fractal generator using the Diffusion Limited Aggregation algorithm, as described in the book "The Beauty of Fractal Images". This is version 2.1 and includes source. Author: Lars Clausen

Rocket Another program in the long tradition of screen hacks. This one zeroes in on your mouse pointer. Binary only. Author: Lars Clausen

ScreenZapA utility that forcibly removes screens and windows from your system. Useful to get rid of zombie screens or windows that have been left around by aborted or buggy programs. This is version 2.3 and includes source. Author: Lars Clausen

SnowFallAnother program in the long tradition of screen hacks for the amiga. Watch the snow fall, get blown around by the wind, and collect in realistic heaps. Includes source. Author: Lars Clausen

CONTENTS OF DISK 304

CirclesA circles pattern generator, reminiscent of one of the early Amiga demos. Version 1.1, includes source in C. Author: Joel Swank

DocSplitA program to split the 1.3 autodoc files into individual subroutine files. One file is created for each subroutine, with the name created by appending ".doc" to the subroutine name. Version 1.0, includes source. Author: Joel Swank

Gears A program to calculate and display the gears of a multispeed bicycle. Works for bicycles with 3 to 21 gear combinations. Version 1.1, includes source. Author: Joel Swank

IRA Allows easy calculation of future values of investment. Enter the beginning investment value, annual percentage rate, annual deposit amount, and number of years, to compute the future value. Version 2.0, includes source. Author: Joel Swank

Lines A color line pattern generator, adapted from Mackie. Version 1.1, includes source. Author: Joel Swank

Mean18 Two custom golf courses for Mean 18. Author: Joel Swank

Multic Formats a single column of input into multiple side by side columns. Includes source. Author: Joel Swank

PageCnt Counts and displays the number of form feeds in a file, along with the length of the longest line. Version 1.0, includes source. Author: Joel Swank

Skel A skeleton workbench application that makes writing workbench programs easier. Provides routines for main, initialization and termination, gadget and menu handling, argument processing, help window, about requester, etc. Version 1, includes source. Author: Joel Swank

SuperRetLabPrints return address labels 3-up on single-wide 3.5 inch by 7/16/ inch label stock. Can print up to 5 lines per label. Version 1.1, includes source. Author: Joel Swank

Verify Walks a directory hierarchy reading all files, reporting any files that can't be entirely read. Version 1.2, includes source. Author: Joel Swank

CONTENTS OF DISK 305

FensterA program which can operate on windows owned by another program, to close them, change their size, refresh gadgets, move the window to the background, etc. This is version 2.1, an update to version 2.0 on disk 298. Includes source. Author: Roger Fischlin

Lhwarp A program which will read tracks directly from your floppy disk, compress them using adaptive huffman encoding, and output them to a file. The resulting file can be used by lhwarp to reconstruct an image of the original disk. This is version 1.20, an update to version 1.03 on disk 295. New features include much faster compression/decompression,

a 32-bit CRC, and two additional compression methods. Binary only. Author: Jonathan Forbes

Mackie A versatile cli/macro-key initiator based on POPCLI with a unique method of "screen-blanking". I won't say more, just try it! This is version 1.4, an update to version 1.3 from disk 267. Includes fixes to work with latest WShell and the new 'never' keyword. Includes source. Author: Tomas Rokicki

Obsess Obsess-O-Matic is a real-time puzzle game like Tetrix where the object is to fit the falling pieces together to form complete horizontal rows. Features such as burning, exploding, and invisible pieces enhance game play. Other features such as a puzzle piece editor are included in the version available directly from the author. This is version 1.0, shareware, binary only. Author: Wayne Phillips

PrFont Prints a sample of each font from the fonts: directory. Draws one line of each font on a custom hires screen, which can be printed. Version 1.3, includes source. Author: Joel Swank

Reversi Plays the classical reversi game on an 8 x 8 square field. Version 2.0, an update to version 1.2 on disk 245. Includes source in assembly language. Author: Marc Fischlin

SpaceLogA database containing data for all of the man related space missions of the United States and the Soviet Union that were related to the development of manned space flight, from the beginning of the space age to the present (368 missions), listed in chronological order. Includes an AmigaBASIC program to manipulate the database. Version 1.54, binary only. Author: Gene Heitman

CONTENTS OF DISK 306

Life A new version of Tomas's Life game. This version includes a new torus option, an option to perform calculations with the processor rather than the blitter, and a couple of other minor changes. This is an update to the version on disk 131, includes source. Author: Tomas Rokicki

RexxPlPlotA library of C functions useful for scientific plotting on the Amiga. The library is Lattice C compatible. Contour plotting, three dimensional plotting, axis redefinition, log-log plotting and multiple subpages are a few of Plplot's features. The plots can be displayed on a monitor or sent to a graphics file for subsequent printing. This is RexxPlPlot version 0.3, an update to Plplot version 1.00 on disk 222. New features include an ARexx interface, support for IFF output, support for PostScript output, support for Preferences, some new functions, bug fixes, and more. Includes source. Author: Tony Richardson, Samuel Paolucci, Glenn Lewis and Tomas Rokicki

Tree A very simple directory tree traversal program, written primarily as an aid to creating zoo archives and disk backups. Has options to exclude certain directories or files with specific extensions. Includes source. Au-

thor: Tomas Rokicki

CONTENTS OF DISK 307

DissiDemosDemo of Midi Sample Wrench, which provides pro sample editing features for owners of musical samplers. Version 1.1, binary only. Author: Jeff Glatt

FileIO A disk based shared library to make filename selection easy for load and save routines using an Intuition interface. This is version 1.5, and update to the version on disk 257. Now includes the ability to select multiple filenames and fixes some bugs in the 1.4 version. Binary only. Author: R. J. Mical, Jeff Glatt and Jim Fiore

Samp Documentation and interface library for an IFF FORM "SAMP", 16-bit sampled sound file format. This format allows more than one waveform per octave, and the lengths of different waveforms do not have to be factors of 2. Includes a utility to convert 8SVX files to SAMP format. Version 1.0, binary only. Author: Jeff Glatt

CONTENTS OF DISK 308

FReq A general purpose file requester, which was designed to be easy to use and fast, with a built-in ARexx port allowing you to use it from ARexx scripts or applications with ARexx ports. Version 1.0, binary only. Author: Jeffrey D. Wahaus

ScreenShareA library and support programs that enable applications to open up windows on other applications' custom screens. For example, your editor may want to open a window on your terminal emulator's screen so you can compose a message while still being able to see the contents of the terminal's screen. Both applications must cooperate for the screen sharing to work. This is version 1.21, an update to version 1.2 on disk 246. Includes source for interface portions. Author: Willy Langeveld

StarBlankerA screen blanker that replaces your display with a randomly chosen animated starfield. Version 1.00, includes source in Modula-2. Author: Chris Bailey

Vlt VLT is both a VT100 emulator and a Tektronix (4014 plus subset of 4105) emulator, currently in use at SLAC (Stanford Linear Accelerator Center). Although the VT100 part was originally based on Dave Wecker et al.'s VT100, many enhancements were made. Features include use of ARP, an ARexx port, XMODEM 1K/CRC and Kermit protocols, support for additional serial ports, external file transfer protocols (XPR), a "chat" mode, and scroll-back/review/history buffer. It comes in two versions, one with Tektronix emulation, and one without. The Tektronix emulation allows saving IFF files, PostScript files, and printing bitmaps to the printer. This is version 4.428, an update to version 4.226 on disk 257. The major change for this update is a rewrite of the Tektronix emulation to support almost all of the Tektronix 4105 escape sequences. Binary only. Author: Willy Langeveld



CONTENTS OF DISK 309

- Bind A binding (glue) library builder. Takes a standard '.fd' (function definition) file and generates a binding library for the functions defined in the '.fd' file. Version 1.2, an update to the version released with midilib on disk 227. Binary only. Author: Bill Barton
- Csh Version 4.00a of a csh like shell derived from Matt Dillon's shell, version 2.07. This is an update to version 3.03a on disk 223. Changes include ARP pattern matching, improved search command, some new commands like 'basename', some new options, bug fixes, and an ARexx port. Includes source. Author: Matt Dillon, Steve Drew, Carlo Borreo, Cesare Dieni
- Ksh A ksh-like shell for the Amiga. Some of its features include command substitution, shell functions with parameters, aliases, local variables, local functions, local aliases, powerful control structures and tests, emacs style line editing and history functions, I/O redirection, pipes, large variety of built-in commands, Unix style wildcards, Unix style filename conventions, filename completion, and coexistence with scripts from other shells. Very well documented. Version 1.3, an update to version 1.2 on disk 291. Binary only. Author: Steve Koren

CONTENTS OF DISK 310

- Mon A machine code monitor/debugger program for the Amiga which is re-entrant and can be made resident. This is version 1.24, binary only. Author: Timo Rossi
- UUCP An implementation of uucp for the Amiga, including mail and news. This is Matt's version 1.00 for the Amiga, based on William Loftus's Amiga UUCP 0.40 release with news code from his 0.60 release, and months of work by Matt Dillon to make fixes and add enhancements. Includes source. Author: Various, major enhancements by Matt Dillon

CONTENTS OF DISK 311

- CRobots A game based on computer programming. Unlike arcade type games which require human input controlling some object, all strategy in CRobots is condensed into a C language program that you design and write, to control a robot whose mission is to seek out, track, and destroy other robots, each running different programs. All robots are equally equipped, and up to four may compete at once. Version 2.1w, binary only, source available from author. Author: Tom Poindexter, Amiga version by David Wright
- Echo Echo is a replacement for the AmigaDOS or ARP echo command. This version provides easy color setting or positioning for all echo'ed strings. Completely compatible with the AmigaDOS and ARP echo commands, all your old batch files should work correctly. Version 1.08c, includes source. Author: George Kerber (based on echo by Garry Glendown)

Etime Etime will display the elapsed time between events. This is useful in scripts to display the elapsed time between the beginning and ending. Many options including color and time displayed as hh:mm:ss or total seconds. Version 1.05c, includes source. Author: George Kerber

Fortune Fortune will randomly display a 'fortune' selected from the fortunes file (supplied). The 'fortunes' file is easily modified or added to by the user, using any text editor. Fortune provides color and speech by user option. Version 2.04c, includes source. Author: George Kerber

Incr Incr will easily allow the user to keep a total count of any event run from a batch file. Incr will take a number from a file, increment it by one and display the result. The new count is written back to the file. Version 1.04b, includes source. Author: George Kerber

PKAZip The PKWare ZIP tool for the Amiga. Provides functions to create, examine, extract, test, modify, display, and print files which are in the ZIP compressed format Uses a full Intuition interface with no CLI support. Version 01.00, binary only. Author: PKWARE Inc, Amiga version by Dennis Hoffman

Udate Udate is a replacement for the AmigaDOS date command, containing many options similar to the UNIX date command. Udate will allow you to set the date and time via prompts or directly from the command line, will display any part of the date or time using the options in any color desired, and will also make an automatic adjustment of your system clock for Daylight Savings Time so your computer will be one less clock you will ever have to set twice a year for DST. Version 1.15c, includes source. Author: George Kerber

CONTENTS OF DISK 312

ChinaChallengeA game similar to Shanghai or Mahjong. The goal is to remove all parts of the pile, the so called Dragon, step by step. This dragon is composed of 120 different game pieces. You can always find four pieces displaying the same picture or chinese symbols. Binary only. Author: Dirk Hoffmann

LHARC An archive program like Arc and Zoo, with a heavy emphasis maximum compression for minimum archive size, using LZHUF compression. This is version 1.10, an update to version 1.0 on disk 289. Changes include 20-50% faster compression, 17% faster decompression, file sorting, more efficient use of memory, a new progress indicator display, and some bug fixes. Binary only. Author: Paolo Zibetti

MoonbaseYou must guide a lunar lander to ferry cargo from an orbiting space station to bases on the surface of the moon. You get cargo and fuel for the lander by docking with the space station. The goal is to complete all the assigned cargo deliveries, and to destroy as few landers as possible in doing so. Binary only. Author: Jim Barber

TrackSalveA trackdisk patch which removes all known bugs and patches the trackdisk task to allow

various enhancements, such as reading good sectors from partially bad tracks, write verification, write protect simulation, and turning off clicking. Version 1.0, includes source in C and assembler. Author: Dirk Reisig

CONTENTS OF DISK 313

UUCP An implementation of uucp for the Amiga, including mail and news. This is Matt's version for the Amiga, based on William Loftus's Amiga UUCP 0.40 release with news code from his 0.60 release, and months of work by Matt to make fixes and add enhancements. This is version 1.03D, an update to version 1.00 on disk 310. Includes source. Author: Various, major enhancements by Matt Dillon

CONTENTS OF DISK 314

A68k A 68000 assembler originally written in Modula-2 in 1985 and converted to C by Charlie Gibb in 1987. Has been converted to accept metacomco-compatible assembler source code and to generate Amiga objects. Includes source. This is version 2.61, an update to the version on disk 186. Author: Brian Anderson; C translation and Amiga work done by Charlie Gibb

Zc A full K&R C compiler based on a port of the Atari ST version of the Sozobon-C compiler. Includes the C compiler main pass written by Johann Ruegg with fixes and enhancements by Joe Montgomery and Jeff Lydiatt, a cc front end written by Fred Fish with enhancements by Jeff Lydiatt and Ralph Babel, an optimizer written by Tony Andrews, an assembler written by Brian Anderson and Charlie Gibb, a linker written by the Software Distillery, generic include files, and a C runtime library written by Dale Schumacher and ported by Jeff Lydiatt. This is version 1.01, an update to disks 171 and 193. Author: Various, see documentation.

CONTENTS OF DISK 315

AmigaFoxA text processor with graphics capabilities. Version 1.00, binary only. Author: Michael Wust

DrawmapA program for drawing representations of the Earth's surface. Can generate flat maps, mercator maps, globe views and orbital views. This is version 2.0, an update to version 1.0 on disk 229. Enhancements include dropshadows, user text entry and placement, improved event processing and better looking mouse pointers. Includes source. Author: Bryan Brown

Surf Generates bezier surfaces of revolution. Will produce some amazing pictures of wineglasses, doorknobs, or other objects one could turn on a lathe. Includes the capacity to map IFF image files onto any surface that it can draw. This is version 2.0, an update to version 1.0 on disk 170. Changes include support for data file formats that can be translated to input files for various 3D modeling programs, an increase in the number of grey shades available, and the capability of modifying the endpoints of segments. Source included. Author: Eric Davies

CONTENTS OF DISK 316

FormulaeAn implementation of basic propositional formulae manipulation routines in Scheme (Scheme is available on disk 149). Uses only essential procedures so it should run under any Scheme. Includes source in Scheme. Author: Gauthier Groult and Bertrand Lecun

Iff2C Yet another IFF ILBM to C converter. Two unique features are the ability to generate comments representing the actual image, and the planepick computation. This is version 0.30 and includes source. Author: Gauthier Groult and Jean Michel Forgeas

IntuiSupA shared library which implements extensions to the Amiga operating system and graphical environment. Includes several example programs that make use of the library, including building a nifty file requester from the library's user interface routines. Version 1.15, binary only. Source available from author. Author: Gauthier Groult

Life Another version of Tomas's Life game. Includes a torus option, an option to perform calculations with the processor rather than the blitter, and more. This is version 5.0, an update to the version on disk 306, and is about 15% faster. Includes source. Author: Tomas Rokicki

SmartIconThis shareware program, submitted by the author, is an Intuition objects iconifier. Version 2.0 is still limited to iconifying windows, which is still very handy. It adds a new "iconify gadget" to each window, that when clicked on, iconifies the window into an icon in the ram: disk. This is version 2.0, an update to version 1.0 on disk 214. Includes source. Author: Gauthier Groult

VectorsA simple program to test how fast the Amiga can draw lines. Includes two versions, 1.0 and 1.1, each of which performs tests slightly differently. Includes source. Author: Gauthier Groult and Jean Michel Forgeas

CONTENTS OF DISK 317

StillStoreA program designed for freelance, corporate, and broadcast television. It loads and displays IFF images of any resolution interchangeably from a list file or as inputted directly (I.E. random access). The user may easily skip forward or backward one or more pictures in the list. A "generic" display is always just a few seconds away. The program can be used "on air" with no concern that a pull down menu will suddenly appear in the viewable area. It also provides for a precise cue for changing windows or screens. While the main purpose is to load "news windows" of 1/4 screen size, StillStore can also handle full-sized and overscanned images. Also includes slide show modes and a screen positioning feature. StillStore is written in the Director language from the Right Answers Group. Version 1.2, binary only, source available from authors. Author: R. J. (Dick) Bourne and Richard Murray

Uniq A text processor which compacts repeated adjacent lines. Intended to be used with a sorted file to print unique lines, or repeat-



ed lines. Behaviour and options like UNIX version. Version 1.1, includes source. Author: John Woods, Amiga port by Gary Duncan

CONTENTS OF DISK 318

CNewsBinThis is part 1 of a C News distribution for the Amiga. This part includes all the binary and text files necessary to set up and run C News. Part 2 is available on disk 319 and contains the source. Author: Various, Amiga port by Frank Edwards

Lhwarp A program which will read tracks directly from your floppy disk, compress them using adaptive huffman encoding, and output them to a file. The resulting file can be used by lhwarp to reconstruct an image of the original disk. This is version 1.21, an update to version 1.20 on disk 305. Binary only. Author: Jonathan Forbes

PKAZip The PKWare ZIP tool for the Amiga. Provides functions to create, examine, extract, test, modify, display, and print files which are in the ZIP compressed format Uses a full Intuition interface with no CLI support. This is version 1.01, an update to version 1.00 on disk 311. Binary only. Author: PKWARE Inc, Amiga version by Dennis Hoffman

WaveMakerWaveMaker is intended to give beginning music and physics students a "hands on" feel for how complex waves are made by adding a harmonic series of sine waves. A fundamental and up to seven harmonics are available. The resulting waveform can be displayed on the screen or played on the audio device using the keyboard like a piano. A game mode is also provided. Version 1.1, includes source. Author: Thomas Meyer

Xoper Very comprehensive program to monitor and control system activity. Monitor cpu, memory usage, ports, interrupts, devices. Close windows, screens, show loaded fonts or last Guru code number. Clean up memory, flush unused libraries, devices, fonts, etc. and a whole bunch more! Spawns its own process. A very handy background task to have loaded. This is version 2.2, an update to version 2.0 on disk 274. Changes include mostly bug fixes and some minor enhancements. Assembly source included. Author: Werner Gunther

CONTENTS OF DISK 319

AHDM Amiga Hard Disk Menu. When placed in your startup sequence, AHDM offers a ten page menu, each page having up to ten possible actions. By double clicking on an action, that action will execute any legal AmigaDOS command, program, or script file. This allows you to interactively select which programs you wish to start or packages to install at boot time. Version 1.1a, binary only, demo version that only supports 2 pages of actions. Author: Scott Meek

CNewsSrcThis is part 2 of a C News distribution for the Amiga. This part includes all the source for C News and the UUPC package that it uses. Part 1 is available on disk 318 and includes all the binary and text files necessary to set up and run C News on the Amiga. Author: Various, Amiga port by Frank Edwards

MathtransA very small library which replaces the mathtrans.library distributed by Commodore-Amiga, for those who own an MC68881/82 floating point unit. Calculation speed of some functions is increased up to 15 times. Version 1.1, includes source. Author: Heiner Huckstadt

CONTENTS OF DISK 320

AmigaTrekA continuation of Mike's Amiga Trek stories, which are parodies of the Star Trek series, with an Amiga flavor. Earlier stories are on disk 278. Author: Mike Smithwick

AmiOmegaAmiga port of the Omega game. Omega is similar to hack or rogue, but is much more complex. There is a city, several towns, a wilderness, lots of dungeons, a multitude of monsters, lots of spells, magic items, etc. There are several quests to complete. All in all, it is an excellent game. Requires 1Mb or more of memory. Amiga version 1.0, binary only. Author: Laurence Brothers, Amiga port by Rick Golembiewski

From Joe Bader

Three little supprises.  
(My first article)

When talking computers I'm not one that likes to talk about business programs such as spreadsheets, databases, accounts and ledgers other non-technical and non-Amiga orientated topics. I like to talk about things that only the amiga can do, how it can do it, how well it can do it and how cheaply it can be done! (that's the main one for me). This is my first article for the newsletter and I'm going to cover a few things that I've come across this past month. The three topics that I'm covering (for those people that just skim through these articles) are:  
1) How to reboot via software the official (Commodore Approved) way;  
2) How to switch the screen refresh rates with the new Super Agnus chip; and  
3) An article if I came across that will knock the socks off any Amiga based graphic enthusiast detailing a device that allows 256 colours on screen from a palette of 16 million with ANY Amiga (Yes, you heard right, ANY A1000 through to A2500/30) or a H.A.M. mode allowing over one quarter of a million colours on screen at once, all without blowing my budget (which is saying a lot!).

Firstly, I know of a few people that have been wanting to reboot from software. There really isn't much to say about this apart from that I came across some source code written in assembler (of course) that happens to be the ONLY Commodore approved way to reboot (next to the three finger salute).

The assembly source is below. I normally do my assembly using HiSoft Devpac 2 and use the OPT L+ to produce linkable code so that I can link it in with my C programs which happened to be done in Lattice V5.02.

Here it is: (I call it "\_ColdReboot.asm")

OPT L+ ;Use this with  
HiSoft Devpac 2 ;to produce the  
linkable code

This is "The \*only\* supported reboot code" for rebooting from your own programs. This code was taken from the Hardware Ref. Manual (Sept 1989 for OS v1.3).

This means it's official and should be used in this exact form so as to be compatible with future OS releases.

\* I use the exec/funcdef.i from Lattice disk #5 because for some \* strange reason HiSoft have a few bugs in their header files. So \* this is just the little bit needed to get this program going.

\* FUNCDEF macro definition for 'exec/exec\_lib.i'

FUNCDEF MACRO \*function \_LVO1  
EQU FUNC\_CNT FUNC\_CNT SET  
FUNC\_CNT-6 ENDM FUNC\_CNT SET 5\*-6

FUNCDEF Supervisor ;Define the Supervisor function

\* CSECT text ;Use this with  
Lattice Assembler  
XDEF \_ColdReboot ;So that Blink  
can see \_ColdReboot

CNOP 0,4 ;IMPORTANT: Must be longword  
aligned

The RESET instruction in the MagicResetCode routine must be executed when the CPU is at the Supervisor privilege level. If running under Exec (which is usually the case), the following code (\_ColdReboot) must be used.

\_ColdReboot:  
move.l 4,a6 ;Get a pointer  
to ExecBase  
lea.l MagicResetCode(pc),a5 ;Location of  
code to trap to  
jsr \_LVOSupervisor(a6) ;Start code  
(must use JSR)

This is code that should be called from \_ColdReboot under Supervisor mode.

MagicResetCode:  
lea.l 2,a0 ;Point to JMP instruction at  
start of ROM  
RESET ;all RAM goes away now!  
jmp (a0) ;Rely on prefetch to execute  
this instruction  
END

Secondly, I happend to come across a new feature that can be accessed via software on any Amiga with the new Super Agnus chip (ID# 8372) installed. This is the ability to switch between PAL and NTSC screen resolutions meaning that software written for 200/400 line (NTSC) displays is actually streached to full height on our machines too. That's not all, it seems that

there is side effect to this. That is that the screen update occurs 60 times per second as compared to 50 times for PAL 256/512 line displays. (That's one side effect I can live with.) This can be achieved by using one instruction which I have managed to insert into the boot-block of some games to make all graphics full screen (and they look great!).

The instruction to switch to a 60Hz (Hertz) refresh rate is as follows:

move.w #00,\$00dff1dc

and to switch to the 50Hz rate simply do a:

move.w #32,\$00dff1dc

Some of you more techy people will know how I could have found this accidently. By the way I think this does the same as the hardware switch version on pin 41 of Agnus.

I have actually the two instructions above it two programs by simply putting an RTS instruction on the second line and called each of them 60Hz and 50Hz respectively so that I can change rates via CLI. You could also attach icons to them to run them from Workbench.

N.B. This method only changes the PAL/NTSC refresh rate, it still leaves the screen at 256 lines high, it's just that the other 56 (of the 256) drop off the bottom of the display area of the monitor.

Also this change in the refresh rate seems to work fine with all the 1081/1084(S) monitors I have tried (since they were designed for PAL/NTSC modes) but I can almost guarantee that you wont get a picture if you using a T.V. or some other PAL video device.

And finally an article which I found (on AmigaLink I) which will interest almost anyone use graphics on the Amiga. There are two reasons why I include this: 1) To prove that the old A1000 and A500's still have not reached there full potential; and 2) So that all those people without modems can get some insight into what us 'MoDEMONs' have access to.

So here is the entire article exactly as I received it.

From yarra!ditmela!munnari.oz.au!uunet!  
cs.utexas.edu!rutgers!att!mcdchg!ddsw1!tronsbox! tron1 Mon  
Jan 8 09:07:43 EST 1990  
Article 5110 of comp.sys.amiga:  
Path: cit5!yarra!ditmela!munnari.oz.au!uunet!cs.utexas.edu!  
rutgers!att!mcdchg!ddsw1!tronsbox!tron1  
>From: tron1@tronsbox.UUCP (HIM)  
Newsgroups: comp.sys.amiga  
Subject: Black BELt Video  
Message-ID:  
<25a12198:3611comp.sys.amiga@tronsbox.UUCP>  
Date: 2 Jan 90 21:51:30 GMT  
Lines: 334

There has been some talk on the net about an expanded Video adapter from BLACK BELT. Well, I gave them a call today and they are for real. developer units are hoped for in January , and



the commercial right after (the FCC).

They asked me as a favor to post the following.

Too bad it is so long, but I'll take the flames in light of how important this thing could be to the Amiga community in general.

AND the fact that I have gotten 5-10 request for it a day for 3 days now.

"Perfume and leather baby, you and me together baby, what good is living in paradise, if you don't let yourself once or twice."

-Tiffany

Kenneth J. Jamieson ---- THE BOSS at Xanadu Enterprises Inc.

UUCP: tron1@tronsbox.UUCP BEST PATH ---> uunet!tronsbox!tron1

Sysop, Romantic Encounters BBS - (201)759-8450 / (201)759-8568

-----  
Club : AMIGA ZONE Sec: 2  
Date : 12/21/89 21:20 Num: 58,633  
Theme: HAM-E VIDEO UPGRADE  
To : ALL By : CAPT\*VIDEO  
Title: BLACK BELT DEVICE  
-----

Black Belt Systems is pleased to announce the forthcoming release of our new HAM-E graphics system for all Amigas from the early a1000's, on up to PAL version 2500/030's and all models in between. The HAM-E is inexpensive, extremely compatible, and it offers more performance for your dollar than any other graphics system for the Amiga.

We'll start at the top: The HAM-E provides you with two new graphics modes in addition to all of the original ones you already have in a standard Amiga - and it does so in an extremely compatible and interference free manner.

\*\*\* REG Mode: The first mode is 256 simultaneous colors from a palette of 16,777,216 colors (24 bits, 8 bits/gun). Resolutions available are 320x200, 320x400 (interlace), the normal overscan options both horizontally and vertically, and equivalent PAL resolutions. Additional features include the capability to color cycle any or all of the 256 color registers, fully Genlockable, sliding/overlapping front-back screens, no CPU overhead to maintain the image (unless you want to color cycle or glow... and even then it's minimal), completely IFF compatible. You can have 256 levels of grey scale in this mode if you are involved in image processing and so on.

\*\*\* HAM-E Mode: The second mode is the Extended HAM (Hold-And-Modify) mode. This mode provides 236 24-bit color registers in four banks of 59, and full 18 bit HAM capability. You can have 262,144 colors on screen at one time (in exactly the same way "standard" HAM allows you to have 4,096) and instead of having 16 color registers available to enhance "fast-

edge" color changes, you have 236.... which are accurate to 24 bits (16 million colors). You use this just like you use HAM mode, but you get...

(1) More than a quarter-million more simultaneous colors than standard HAM mode (or any "normal" Amiga mode) can provide;

(2) You have much better sharp edge color changes because you have 59 immediately available color registers you can use to load the R, G and B guns with no delay or HAM artifacts to a precision of 24 bits (16 million colors);

(3) You have the ability to change anywhere in the picture to a new set of 59 color registers - the cost is one pixel that does not change at all from the previous pixel. Obvious "good" places to do that are at the beginning of a scan line, or in an area of an image that is not currently changing (say, the contour of a cheek). Remember, it only takes one pixel and there is no processor overhead involved, no interrupts, no blitter. It's all directly dependant on the pixel data in the image.

The HAM-E mode is Genlockable; it exists on a sliding, front/back standard Amiga screen; it's fully IFF compatible; and supports color cycling of any of the 236 color registers, regardless of bank. Resolutions available are 320x200, 320x400 (interlace), the normal overscan options both horizontally and vertically, and equivalent PAL resolutions.

#### Some General Information:

The HAM-E device attaches to any Amiga by simply plugging it into the DB-23 connector that is the RGB port using a supplied cable, and then plugging your monitor or genlock into the other DB-23 connector on the HAM-E. Then you plug it's AC cord into a wall outlet. That's all there is to installation; no need to change your system software in any way, or to add libraries or devices.

At this point, you turn your Amiga back on, and use SuperView (or any other show or slideshow utility that understands standard 640 resolution images) to view your first HAM-E images (supplied on a demo disk from us). When you're not viewing an image that uses one of our new modes, for instance, if the WorkBench(tm) is pulled halfway "over" a new mode image, the normal screen (in this example, the WorkBench) looks just as it usually does, and the portion of the new mode image looks exactly as it should also.

The point we're making here is that the new mode images act exactly as if they had been designed into the system from the very start of things.

One very important difference between the HAM-E product and other, competing display adapters is that our images are maintained in the Amiga's normal "chip" memory, and so you can use the blitter on them; that means that animation and page flipping does not require the direct attention of the CPU... a critical point for those of you using standard animation utilities.

Something else worth noting at this point is that the output from the HAM-E hardware is quality 24 bit RGB (or 12 bit

when a normal Amiga screen is showing, and only for the portion that is showing) rather than composite video - composite is very difficult to process in many ways, especially for studio work. You can always turn RGB into composite or S-VHS, but not the reverse.

Some things to keep in mind:

The HAM-E works by operating on the video data coming out of the Amiga RGB port. For this reason, in a system using a flicker-fixer (tm) the new enhanced modes will not be visible on the flicker-fixer's output monitor - only on a monitor connected to the HAM-E. This is a video tool and as such does not at this time support deinterlacing. You can always have both monitors attached, of course.

Think of the output port on the HAM-E hardware as if it were the DB-23 jack on the Amiga; all the same signals are there, on all the same pins, and they work as they always have under the same conditions. For this reason, external genlocks, composite and S-VHS adapters, and monitors all will continue to function normally. It really is as if the Amiga magically "grew" three great new video modes.

Here is a concise list of features for the HAM-E graphics enhancer:

- \* 256 thousand simultaneous colors on screen, HAM-E mode
- \* Up to 236 directly usable color registers in 8 bit HAM mode
- \* 256 simultaneous colors out of palette of 16 million, REG mode
- \* Complete "color cycling" capability for 59 or 236 color registers
- \* All color registers are 24 bit accurate (8 bits/color-gun)
- \* Both modes can be animated using standard anim type tools
- \* Both Modes are completely IFF compatible
- \* Both modes supported by existing show and slideshow tools
- \* Both modes may be overscanned horizontally or vertically
- \* Both modes may be interlace or non-interlace
- \* High rez menuing capability
- \* No "CPU" overhead involved in maintaining the image
- \* No "BLITTER" overhead involved in maintaining the image
- \* All normal Amiga modes pass thru unaffected
- \* Amiga modes are still Genlockable
- \* Both new modes are Genlockable
- \* Image memory is BLITTER and CPU accessible
- \* Screens are fully "vertical slide", "overlay" & "front/back".
- \* Works with ALL Amigas - a1000, 500, 2000, 2500, 2500/030, PAL, etc
- \* Attaches to Amiga RGB connector only - no internal connections
- \* Quality RGB output - not composite
- \* Externally powered, no load on Amiga system
- \* FCC Approved

Best of all...

- \* Affordably priced - less than half the cost of other solutions

About support programs:

Currently, we have talked to Impulse (Silver), NewTek (Digi-paint), MicroIllusions (Photon Paint II), Electronic Arts (DPaint, Deluxe Photo Lab) and ASDG (Professional ScanLab, ScanLab 100) about the HAM-E. All were enthusiastic and interested, and all have already ordered units from the developer run. Support has been promised for format conversion for the various 24 bit file formats that are out there, and we have barely scratched the surface as of yet.

We will be supporting the HAM-E directly with our AVT (Amiga Video Terminal) product which is marketed by AEA corp.

We fully expect the sales of the HAM-E to positively explode as soon as we make units available (Jan-Feb of 1990), and are planning production accordingly. There is nothing available for the Amiga that even comes close to the flexibility, compatibility, and color resolution for anywhere near the planned retail of this unit, which is in the \$300.00 range (subject to change as we get a better handle on production costs, of course).

Black Belt Systems - technical products for the Amiga Computer 398 Johnson Road, Glasgow, Montana, 59230

Voice and FAX: 406-367-5509, 8am to 5pm, MST.

CAUTION!!! Getting Really Technical:

By now, if you're a technical type, you may have picked up on the fact that both of the new modes use an 8-bit word for each pixel. Also, these pixels are maintained in the Amiga's chip memory, and not on (in) the HAM-E device. It is well known that the maximum number of bitplanes the Amiga can support is 6, and that must be in "lo-res", that is, at the 320 pixel/line rate. All of this is true.

What we are doing is creating a "normal" 4 bitplane 640 pixel/line mode of one type or another, interlace or non, overscan or non. Then, at the RGB connector, as these pixels are emitted 1 at a time at a 640/line rate, we combine each pair into a single 8 bit pixel, which the HAM-E hardware then processes as appropriate for the mode it's currently in.

In the top scan line of the new-mode image, there resides a 16 pixel long sequence at the beginning of the scan line. Recognizing this sequence "triggers" the HAM-E hardware into one of it's two new modes. We refer to this trigger data with a smile as the "Magic Cookie". Our Cookie resides in the top line of the IFF image as data, so when viewing images, the "show" software needs to do nothing in order to display the image properly.

Once triggered, the HAM-E stays triggered until (1) vertical sync, (2) a new code is encountered, or (3) The Amiga emits color zero for more than one entire scan line.

If you drag an new mode screen down, the trigger data is not encountered until the top of the new mode screen is emitted - that means that you can vertically drag the screens with normal results.



When an overlapping screen begins, several lines of color zero are emitted, and this turns off the trigger - meaning that overlapping screens switch immediately back into the correct mode. This is why the value zero is reserved in the color register lookups... if you were to have an entire line of this, the HAM-E would un-trigger. You may, if you are careful, use the value zero, as long as there is some other value somewhere on the scanline. This applies to both REG mode and HAM-E mode.

On the line where the 16 pixel code resides (presumably the top line in the image), there follows 384 pixels which contain the color register information for the display, if it's REG or HAM-E. This data is arranged as 64 sets of RGB triplets, each 8 bits wide. To load the extra banks of 64 registers, you simply put a second, third, and fourth trigger line at the top of the screen - each successive trigger line loads another set of 64 color registers.

There are some interesting implications here. If there is only 1 new mode screen active, you only need to do this once - the color register rams are static, and will hold this data until new trigger lines are encountered. If you have more than one new mode screen up, then you'll need to maintain as many trigger lines as there are sets of color registers being used.

In addition, in interlace, a trigger line is required for each field, so two lines are required for 64 registers, and 8 for 256. An interesting thing to note here is that the color registers for the odd and even fields can be different, and so you have 472 24-bit color registers you can work with. This goes for REG mode as well, of course; in interlace, the odd field has it's own set of 236 registers, as does the even field.

We do not take our pixel information from the Amiga on the linear RGB lines. Instead, we use the IRGB lines. New Mode images must have a particular set of values loaded into the Amiga color registers, so that the IRGB lines will set themselves to 16 discrete states. This is no hardship, as the Amiga color registers are otherwise unused for the duration of a new mode image.

False triggering is extremely unlikely. First of all, the trigger data is 16 pixels, or 64 bits, long. That means there is a one in 1.8 to the 19th power chance of hitting it accidentally. But that's not all, because we take our data from the IRGB lines, the Amiga's color registers must also be set to values that create 16 discrete combinations on the IRGB pins - the number of color combinations that do this are a very limited set of those you can create. Next, the data rate coming from the Amiga must be 640, and there must be 4 bitplanes because otherwise you can only make 8 (or less) color combinations. So an "accidental" trigger can only happen in a 640 rate screen with a particular (Amiga) color palette and a particular sequence of data in the first 16 pixels. It's very, very safe.

Here is a general diagram of how the HAM-E mode compares against the standard HAM mode; it may help clarify things for you.

Standard 6-bit HAM works like this:

00xxxx - the 4 x's pick a color register - R, G and B load up.

01xxxx - the 4 x's go to the red gun for this pixel.  
10xxxx - the 4 x's go to the green gun for this pixel.  
11xxxx - the 4 x's go to the blue gun for this pixel.

HAM-E uses an 8-bit data word, and works like this:

00xxxxxx - the 6 x's pick a color register, 1-59 are valid #'s, the color registers load 24 bits of data, 8 bits per RGB gun - accuracy is 16 million colors.  
00111100 - Select bank 0 of color registers - no gun changes  
00111101 - Select bank 1 of color registers - no gun changes  
00111110 - Select bank 2 of color registers - no gun changes  
00111111 - Select bank 3 of color registers - no gun changes  
01xxxxxx - the 6 x's go to the most significant 6 bits of the red gun for this pixel - the least sig two bits are zeros..  
10xxxxxx - the 6 x's go to the most significant 6 bits of the green gun for this pixel - the least sig two bits are zeros..  
11xxxxxx - the 6 x's go to the most significant 6 bits of the blue gun for this pixel - the least sig two bits are zeros..

Let's sum up: Let's say you use SuperView (a standard show utility) on a newmode formatted IFF image. First, the IFF image data represents a four bitplane image, with a particular set of color registers. The data for the first 1 to 4 scan lines will contain the Magic Cookie, followed by data for 64 color registers. The rest of the image body will contain scan lines formatted as four bitplanes, each bitplane arranged as 320 pairs of bits per scan line. When this is displayed by SuperView, the line containing the first Magic Cookie triggers the HAM-E hardware and it then loads the color registers from the rest of the trigger line. If there are succeeding trigger lines (up to 4), it loads more sets of 64 color registers. Any line that is encountered that does not have a trigger in it is processed according to the mode selected by the Magic Cookie type (There are two types, one for each mode). If the WorkBench is visible, say it's pulled up over the bottom third of the image, then the HAM-E system un-triggers when it see's the presence of the c0 (Color zero) bit for longer than one scan line.

The above came from a local BBS...the Amiga Blue BBS (804) 748-9853

Kermit // Capt\*Video

By now I guess you can see why I included this in my article. This device could bring as much graphic power to the Amiga as some Mac-II machines (and they have to fork out around a few grand for just the monitor). All this power can be simply plugged in for the price of a couple of disk drives. Lets just hope that the software houses start to support the product, you never know, maybe even Commodore might get into the act and make it a standard feature.

By the way all of the above can be found on AmigaLink I and most likely AmigaLink II by the time this is printed including some my programs.

They are called:

- FULLV213.LZH - Full V2.13 includes the \_Col-dReboot code as well.
- RFSHRATE.LZH - Includes the 50Hz & 60Hz pro-

grams with source.  
and  
- HAME.ZOO - The above article on the HAM-E video device

Anyone who wants contact me can leave a message on either AmigaLink for the Joseph Bader. I can't guarantee a quick response since I'm studying this year and I have to limit my time spent using "Ami" (life's tough) but I can guarantee a response.

All most forgot. I just remembered that some people at the meeting wanted to know what kind of a setup other people had and what they used it for, so this is my set up:  
- Amiga 2000 (rev. 4.4, 1 Meg RAM, 2-3 months old);  
- 1081 (black screen) monitor;  
- 1 x 5.25 inch 880Kb (720Kb IBM) internal disk drive.  
- Epson LQ-500 24 pin printer (which I'm very happy with);  
- Maestro 2400 ZXR modem (which I'm extremely happy with);  
- Stereo sound sampler; and of course  
- A HIFI so that all those stereo samples sound really great!

Also I'm planning to have a GVP '030/28 board (maybe even the 40MHz board depending on the price they're going to sell for) around the time of the next meeting with no math co-processor or 32 Bit RAM yet (I am a student after all) since I'm planning on using it basically as a (42Meg) Hard Disk controller at least until I can afford the rest.

And what do I do with it all? Well use it for the, graphics (painting), music writing, sound sampling, animation work, video work (genlocking), programming (in C, Assembly and the odd Modula-2 here and there), word processing (only when I really need to), and of course communications (ie. BBS's and with friends). Not much really.

That's all! See y'all at the next meeting.

AUGADS

For sale: Amiga 2000B rev 6.2, with 1084s monitor, 3 1/2" drive, 1 meg RAM, 44 meg Toshiba SCSI drive with 2090æ controller, 1 XT Bridgeboard, 1 20 meg Epson drive with controller; \$5500 Ben Beitman 720 6722

All ads placed in this section are from members only, placed free of charge for a month only unless re-submitted. Just send (or hand) your ads to The Editor, AUG PO Box 48, Boronia 3155, on paper or disk, or leave me a message on AmigaLink I or II.

About Me

Darren Bacon

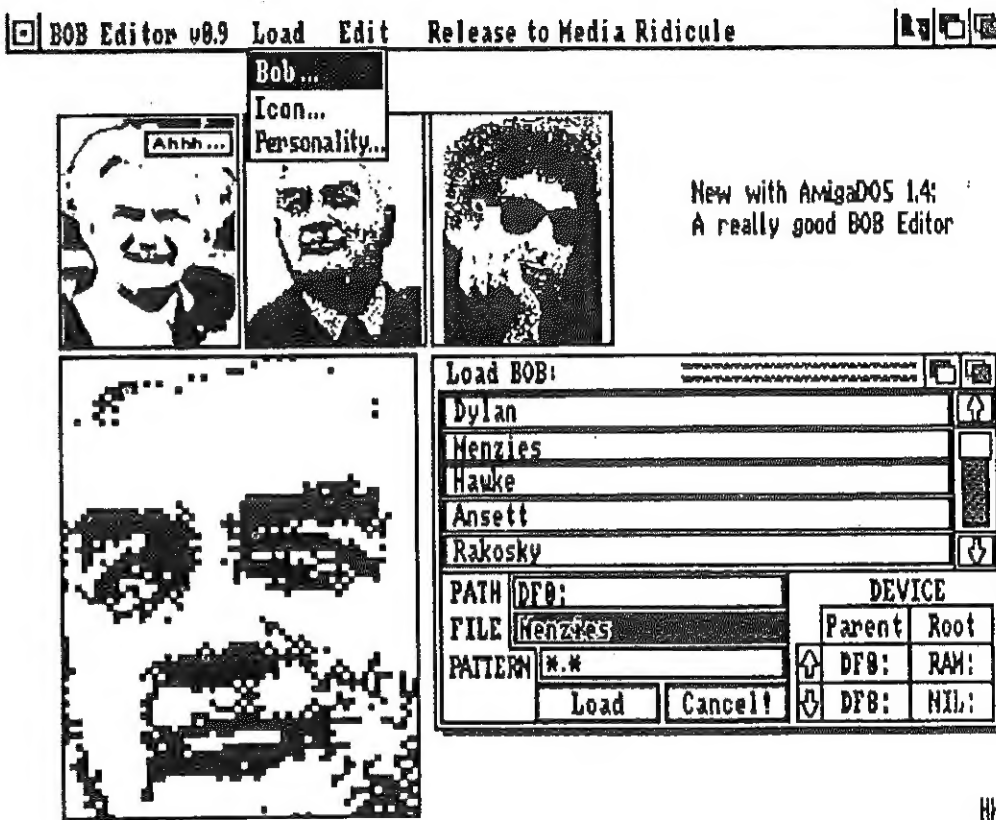
Well if Shally (Dale Anwyl) can write an article I guess I can too!! I've seen his spelling on the BBS's around here, I hope that Con's spelling checker has recovered :-). You can blame my errors on Wordperfect!

Like most people I graduated from C64/128 to the Amiga. I am presently running an A500, 1 meg, 3 drives, Bit Blitzer modem, a little Tandy amplifier with one bought speaker and one home-made speaker, 1084 (mono) monitor and an NEC P2200 printer. When I can work up the courage to ask my wife, I'll be adding a hard-drive, or upgrading to a 2000. Been a member of AUG since October '87 and have basically done nothing for the group! It's difficult to get to meetings from the country (Bendigo) and I don't know if I have much knowledge to share with you, but I'll try anyhow.

My main use for the Amiga? Entertainment. It takes a computer user a long time to admit that. How many times have you heard someone say, "I don't play games, I'm a ....."

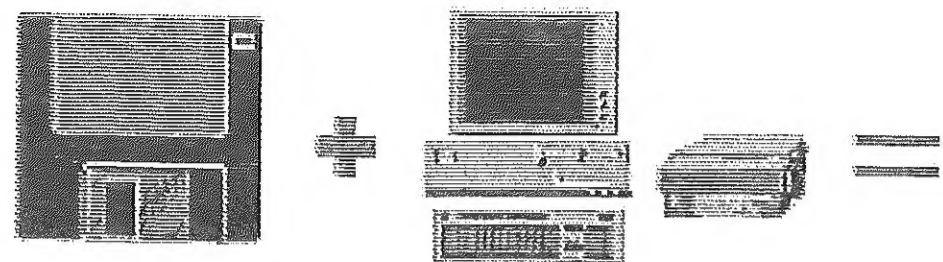
RUBBISH. Using a computer on a non-professional basis is playing games. It doesn't have to be Silk Worm or Populous. Look up "games" in the dictionary, mine says "Diversion, past time" So we all play games.[Ed-except me of course...hehe]

What I'm going to do is write some articles about the games I play. They will include Wordperfect, AC/Basic, Pagesetter, a couple of hardware hacks and other stuff. Come on, tell us about YOUR games, even if they really ARE games!





# QUALITY D.T.P



- High quality 300DPI postscript
- Major Amiga packages supported
- Fast and reliable service
- Certified mail return

Have you ever wanted to print all those iff pictures and documents that you have been waiting to print on a postscript laser well; then we are answer to your dreams. Just put all the files onto a blank disk in either Professional Page, Pagestream, Pagesetter, Excellence format or just a iff files, these can even be compacted in arc or zoo format if need to be.

cost A4 iff pics=5\$ each

text or text and graphic A4=1\$each

Please specify what format you have used and what you would like done.

(Leave a message on disk perhaps, stating requirements, name, return address and phone)

Send disk and money plus 2\$ P&P:

## PD Review - Tetrix

During the preparation of this article, I noticed that one of the Australian Amiga magazines (is there more than one?) did a short write up on Tetrix. At the risk of boring you, I decided to complete this article for two reasons: First, Tetrix is an excellent game, and second, the magazine article didn't go into a lot of detail about the game (sorry Phil!). First, some background is in order.

Tetrix was developed by David Corbin (Georgia, USA), after seeing the game on an IBM-PC (can I say that brand name here?). The original game is called Tetris, and there are commercial versions available for many types of machines, including high cost workstations - that gives you an idea of the popularity of the game. Tetris originated in Russia (or Bulgaria - the author is not sure), and is very addictive, like many games which have a simple concept behind them. The Amiga version was written in 1988 using Aztec C 3.6. Source is not included, but if you write to David (his address is included in the documentation) you never know your luck. Personally, I'm not after the source because I haven't found a bug in the game yet! Tetrix is shareware, the author asking for a donation of \$20, or whatever you think that the game is worth.

The documentation which comes with Tetrix is about three pages long and contains all of the information needed to drive the game. The three pages are filled with straight forward, no nonsense instructions which means that you don't have to wade through piles of waffle to get started. Let's play...

When the game starts, you are faced with a custom screen with two windows on the screen, one of which is the playing field. The playing field window is a pit, 20 blocks deep and 10

## Also available:- Quality Desktop Publishing..... & LAYOUT!

No job to small, No job to large

Contact:

DNA  
TECHNOLOGIES  
P.O BOX 18,  
Belgrave, 3156

PH (03) 754 5531

Fax (03)754 2454

blocks wide, into which objects fall one at a time from the top of the screen. These objects are 4 blocks each in size, and can be one of seven different shapes. The falling objects can be manipulated by moving them to the left, right or rotating anti-clockwise. The idea is to manipulate the blocks so that they fit neatly together at the bottom of the pit, and form a line across the pit. When a line is formed, it flashes, disappears, and you get a score for it. A running score is kept along with a tally of the number of lines which you've managed to complete. Sounds easy? There is just one complication - every ten completed lines, you move up one level, which means that the game gets faster. When you get to level 10 (completion of 100 lines), the blocks travel so quickly that there is barely any time to manipulate them.

The keys used to move and rotate the blocks are the "4", "5" and "6" which can be easily used on the numeric keypad to move left, rotate, or move right. Pressing "2" increases the level by one (unfortunately, there is no key defined for decreasing the level by one). The space bar is used to drop a piece quickly, in the case where you have positioned the piece where you want it to drop. Bonus points are awarded for the use of the space bar. Left handers may find the numbers on the keyboard easier to use instead of the keypad.

If you think that the standard game is too easy, you can select your starting level (the speed at which the blocks fall) and the level of difficulty. A higher difficulty level puts some blocks at the bottom of the pit when the game starts. There are also a couple of other options which are worth mentioning. You can have a preview of the next piece to fall, and you can display a window containing the distribution of pieces which have fallen (i.e. how many of each shape have fallen).

The game can be played either from the Workbench, or from CLI. If you don't like the colour scheme that Tetrix uses, you can tell it to use the Workbench colours. You can also start the game up with any of the options mentioned previously, instead of selecting them from the menus within the game. Details on these options are included in the documentation provided with the game. I guess my only criticism of the game would be that the high score is reset to zero when the game ends, so unless you keep an eye on the score before the game completes, you don't know what you scored - only the number of lines completed. I'm using Version 1.1 which came from Fish disk number 173. Version 1.0 is available from AmigaLink II, and I've seen Version 1.0 come up with a screen containing a history of the high scores. In all the time that I've used Version 1.1, I've never seen this high score screen come up (maybe I'm not scoring well enough to be put on the list?).

One last thing - the games are randomized, so that each time you start a new game, the sequence of objects which fall should be different to the last game. If you think that you could do better next time with the same game, you have the option of playing the same game over again. That may also come in useful if you are playing against another person - you can both play the same game and see who completes the most rows.

So there you have it - An excellent game which will cost you \$2 if you get it from the AUG Public Domain library (on your own disk). From what I've seen, Tetrix is a better quality, more bug free game than many commercial games for which you pay upwards of \$40. One final comment - Perhaps games like Tetrix should come with a warning along the lines of "Warning - This game is extremely addictive. Keep away from children if you want access to your Amiga", or "Warning - This game has been known to make people late for work".

## ANNOUNCEMENT AUG Disk

# #1

50 Copies Only  
available next  
meeting on  
good quality  
disks... \$5

## Out Now ... The New Magazine on Disk

AUGDisk #1 will be available at the March meeting. In response to demand indicated at last meeting, 50 copies have been prepared on good quality disks and these will be available at \$5 each. If you are not one of the first lucky 50, you may order in the usual way from the PD library.

If there are to be further issues, contributions are needed NOW. There could surely be very few members who have not got something on disk which they would like to share, be it art, music, an icon, program, animation, or whatever.

Please re-read the article on page 6 of the February'90 issue to be reminded of the many ways in which YOU can participate in this exciting new venture.

Norm Christian

P.S. I would like to acknowledge the help, beyond the call of duty, of nikolai kingsley (lower case his preference). If there were a few more like him this would be an even better club. [Ed - I heartily agree with Norm on this...]

## CLUB NEWS, INFO, EDITOR'S COLUMN

(Written 2-3-90)

There isn't the usual, many and varied articles as other months in this issue. Never mind, as there still is a large number of interesting goodies. We will have announced in the newsletter a simple description of news, and the common meeting events as the people who don't attend meetings have very little idea what they are for.

As part of our ongoing commitment to help our members by sharing the knowledge of experienced users, we will have, from the next main meeting onwards, a suggestion/question box. You can make suggestions on what should be done by the club, or put a question down which, if possible, will be answered in the main meeting - no embarrassment involved, and no questions will be considered stupid. I mean, that's what we are about; trying to make our inexperienced users get the most out of the Amiga through the help of the experienced users, and for the experienced users to share their knowledge with other experienced users; we will try to cater for everyone. If questions cannot be answered at that stage, we will publish the questions and answers in the following month's newsletter.

The Amiga Users Group has a phone line at which upcoming meeting dates, and events will be announced on an answering machine, and you can then leave a message if you wish and the appropriate committee member will contact you as soon as possible. See the inside front cover for the number.

We are holding a competition for the best cover picture for our 50th Anniversary edition, which will be a color cover. Create and send your IFF entries soon as there are only 4 months till that issue. See elsewhere in this issue for more details.



AMIGA HELP-NETWORK

The following is a list of AUG members who have volunteered to share their knowledge/experiences with others. If you also want to help and have your name listed here please contact Lester McClure (233 5664 AH). The names are not listed in any order of priority and the format may change in future listings. Please keep contacts to reasonable hours (6 to 9 pm unless otherwise mentioned) and remember one very important basis of this service - they are volunteers...

Neville Sleep	- AmigaBasic (beginner level)	- 546 0633
Rudy Kohut	- AmigaBasic (intermediate)	- 807 3911
John Elston	- AmigaBasic (advanced)	- 375 4142
Alan Garner	- AmigaBasic, A/C Basic	- 879 2683
Mal Woods	- C(Introductory), Professional Page	- 888 8129
Andrew Gelme	- C (advanced) - AZTEC	- 645 1744
Eric Salter	- C (advanced) - LATTICE, TeX	- 853 9117
Norm Christian	- Amiga Art, Music	- 798 6552
Neil Rutledge	- Music, Audio Sampling, MIDI	- 597 0928
Russ Lorback	- Excellence!, Superbase Professional (Beg-Int) After 9:30 pm	- 756 6640
Darren King	- Amiga Viruses, Modems/communications	- 546 5040
George Wahr	- Side-Car, Bridgeboard	- 376 6180
James Gardiner	- AmigaDOS, Auto-boot hard drives	- 523 6843
Stephen Bell	- Hardware design	- 25 8415
Joe Santamaria	- Graphic arts - DPaint, Sculpt etc.	- 836 9129
John Hampson	- Modula-2	- 584 3921

Now for the club info. After the last few months, almost everyone would have learnt that all articles published in this newsletter come from ordinary members, and they are rewarded for the articles they send in. See the inside cover for the complete details.

At the main monthly meetings that we have, the format follows a pattern for each month. That is; at 2pm, a speaker will begin all announcements the club has to make, and all committee members who have any announcements will make them. Then we go to a general question and answer session. There is no "show" as such, although most months we have many demos to display on the large projector screen

After the main meeting, we break into the special interest groups (SIGS), where you can talk, ask, answer, watch or put on a display of what it is that your particular SIG is interested in (eg business, music,BASIC, or whatever)

During the entire meeting, you may place orders with the disk librarian for copies of our range of public domain programs. You may also purchase back issues of this newsletter. Also, you may browse through our book library and borrow a book from our large selection from programming in BASIC to the ROM Kernel Manuals, and many popular magazines.

At each month's meeting, there will also be a stand set up from some retail outlet, offering all they sell at discount prices, as well as the disks and so forth that you can purchase from our purchasing officer.

So as you can see from that description, it's not as if it is invitation only. In fact each month, we have a turnout of about 200-300 at the meeting, with new people coming each month.

Currently the Group is making big moves to make membership more and more beneficial, with many new ideas from the committee and now members, to help the users gain the most out of the Amiga series computer.

One thing that must be emphasized from time to time is that the club DOES NOT condone piracy, as this is what brings about the downfall of the computer industry, and if it continues, it may bring about the downfall of the Amiga...

So what do I have to say for myself from an editor's point of view this month? Well, I'm pleased (to say the least) from the response I have had from my pleas for more articles, and hope this continues in the future.

I want to see lots of entries for the colour cover competition. If you send your entry in and dont win, dont worry as your picture may be included in the middle pages of the issue as well, to show the standard of the entries, and may even be the cover of a future issue, and you will still be rewarded for those as if they were normal contributions.

Anyhow, for those of you who, like me, have returned to Uni (or school for that matter) then work hard but have fun and good luck. See you at the next main meeting... regards, Con Man 1.4

PUBLIC DOMAIN SOFTWARE ORDER FORM

Mail to: Amiga Users Group, PO Box 48, Boronia 3155, Victoria

Disk Numbers:									
Don't forget to specify collection name i.e., Fish, Amigan, Amicus etc.									
Disks supplied by Amiga Users Group @ \$ 6 each								\$	
Disks supplied by member @ \$2 each								\$	
Club Use Only:								Total: \$	
Member's Name:						Membership #:			
Address:									
Postcode:									

NEWSLETTER BACK ISSUE ORDER FORM

Mail to: Amiga Users Group, PO Box 48, Boronia 3155, Victoria

Issue Numbers:									
Be patient, we may have to reprint some issues to fill your request									
Number of issues ordered @ \$2 each								\$	
Club Use Only:								Total: \$	
Member's Name:						Membership #:			
Address:									
Postcode:									

APPLICATION FOR MEMBERSHIP OF THE AMIGA USERS GROUP INC.

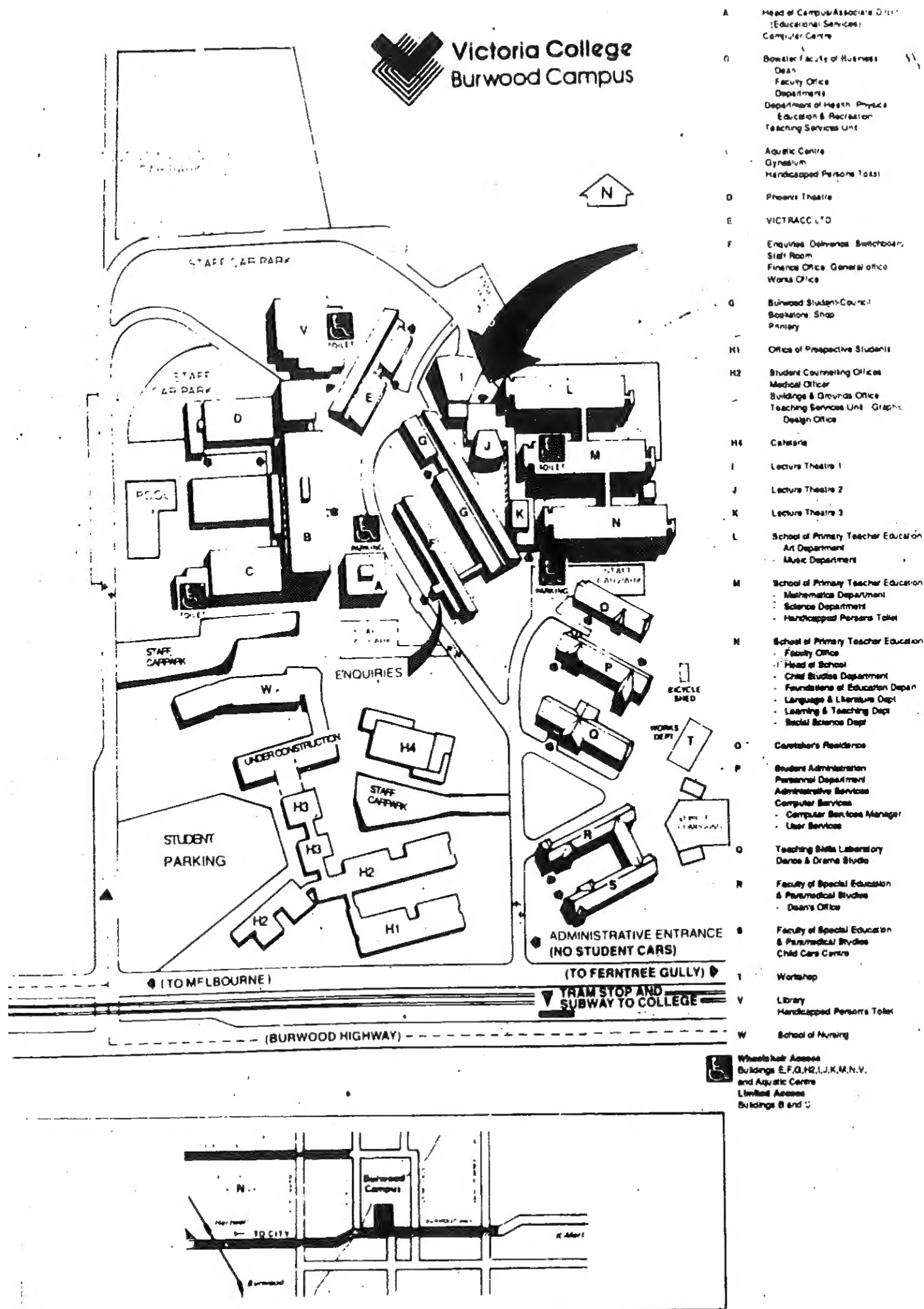
Membership is \$25 per year. Send your cheque to: Amiga Users Group Inc., PO Box 48, Boronia, 3155

Surname: _____		Details on this side are optional			
First Name: _____		Year of birth: _____ Which Model Amiga _____			
Address: _____		Occupation: _____			
Postcode: _____		Interests: _____			
Phone Number: _____ STD Code: _____		_____			
Where did you here about AUG: _____		_____			
_____		Dealer's Name: _____			
_____		Dealer's Address: _____			
Signed: _____ Date: _____		_____			
If admitted as a member, I agree to abide by the rules of the Association for the time being in force					
Club Use Only	Date	Paid	Rcpt #	Memb #	Card Sent



# Amiga Workbench

## AUG normally meets on the third Sunday of each month



## Where is Victoria College, Burwood Campus?

Melways Map 61 reference B5.

People often have difficulty locating our meeting place the first few times. Victoria College is on the North side of Burwood Highway, Burwood, just East of Elgar road. Coming from the City along Burwood Highway, turn left at the first set of traffic lights after Elgar road. Follow the road around past the football oval, over five traffic bumps to the car parking area near the netball courts. Further up the road, to the right, you'll find Lecture Theatre 2.